



# T. KEAR

TRANSPORTATION PLANNING  
& MANAGEMENT, INC.

## Tom Kear, PhD, PE

Dr. Kear has 20 years of experience in transportation planning, traffic operations, and environmental analysis. He has prepared studies for NEPA and CEQA since 1991 and has provided training on environmental analysis of transportation projects for Caltrans, FHWA, and the UC Davis Extension.

He has experience with TP+/Cube, VISUM, and TransCAD traffic demand modeling packages and Traffix, Synchro/SimTraffic, VISSIM, CORSIM, and HCS traffic operations and simulation software. He has worked extensively with the methods and protocols contained in the MUTCD, HDM, 2000 HCM, and 2010 HCM.

Dr. Kear has lead numerous traffic impact studies for all types and sizes of projects, strategic plans, and impact fees. A sample of highly visible traffic studies that he has managed includes:

### East Bay Bus Rapid Transit

Dr. Kear lead the traffic impact study for the proposed 17 mile AC Transit BRT running from San Leandro BART to Berkeley, through Oakland. The project proposed to convert a 4-lane arterial into a 2-lane arterial with dedicated bus lanes. The analysis incorporated 130 study intersections, redistribution of traffic, and mitigations that balance the needs of Caltrans, city planners, and AC Transit.

### Sacramento Railyards EIR Traffic Study

Dr. Kear managed transportation demand modeling for the Railyards redevelopment project DEIR/FEIR in Sacramento. This is the largest infill development project in the United States and includes phased development of 10,000 dwelling units, 1,200 hotel rooms, 3.9 million square feet of office space, 400 K square feet of historic/cultural uses, a 20,000 seat sports arena, light rail stations, and the new Sacramento Intermodal Transportation Facility (SITF).

### Stockton Peer Review

Dr. Kear lead the city peer review of DEIR/FEIR traffic sections for the Mariposa Lakes, Tidewater and Sanctuary planned unit developments totaling 20,000 dwelling units and 20 million square feet of non-residential land use. Peer review resulted in project changes to improve traffic circulation and increased the development's fair share cost percentage for regional mitigation.

## Education

Ph.D., Civil and Environmental Engineering, University of California at Davis, 2005

M.S., Civil and Environmental Engineering, University of California at Davis, 1993

B.S., Environmental Resource Engineering, Humboldt State University, 1991

## Areas of Expertise

Environmental Analysis  
NEPA/CEQA

Travel Demand Forecasting

Traffic Operations

Transportation Air-Quality  
Policy

Emission Factor Modeling

### City of Sacramento's Transportation Development Fee Program

Dr. Kear managed traffic forecasting, operations analysis, and the nexus demonstration for a city wide traffic impact mitigation fee in Sacramento. The analysis was set up to be consistent with the AB 3005 requirement to reflect trip reductions in transit centers.

### Pechanga Indian Casino Expansion

Dr. Kear developed an analysis of changes in circulation and trip generation that would occur with the upgrade of Class II gaming machines to Class III gaming machines at California's largest Indian casino. The analysis was used for negotiations between the City of Temecula, external legal counsel, and the Pechanga Band of Luiseño Indians to determine the need for mitigations to maintain compliance with requirements of the ratified Tribal-State Gaming Compact.

### I-5 Oasis Road Interchange CORSIM Analysis and PSR –

Dr. Kear helped negotiate project scope/purpose with Caltrans District 2, oversaw preparation of a traffic study, and helped draft the traffic section in PSR documents. A four mile length of I-5 near Redding, CA and a one mile length of Oasis Road were simulated using CORSIM. The PSR was signed by the City of Redding and Caltrans on September 10, 2009.

### Borden Ranch Surface Mining Rezone and Use Permit

Dr. Kear managed a traffic impact study for a proposed Sacramento County quarry. The project would rezone 460 acres from flood to surface mining and require a conditional use permit to allow for surface mining on 335 acres. The study went beyond simply assessing traffic operations and truck indexes; the adequacy of truck turning radius, vertical site distance, impacts on school bus operations, and the relative increase in road bed depth required to maintain the original design life of affected roadways were all addressed.

### Interra Development Walgreens

Dr. Kear prepared a traffic impact study for a Stockton Walgreens pharmacy. Traffic impacts were estimated and mitigations were developed to reduce the impacts to less-than-significant. The traffic study was written to facilitate CEQA clearance as a supplemental EIR. Mitigations were designed around a planned signal improvement project from the Capital Improvement Program project list to avoid frequent construction closures in the area.

### Sacramento Flooding Traffic Disruption Analysis

Dr. Kear managed preparation of a traffic disruption analysis of potential levee failures in Sacramento for the US Army Corps of Engineers. Inundation maps were provided based on catastrophic levee failure scenarios and the impact to remaining residences and businesses of lost infrastructure. Traffic Disruption was measured as increases in travel time and distance that would result from flooding. SACMET was used to estimate the change in vehicle miles traveled (VMT) and vehicle hours of travel (VHT). Daily estimates of VMT and VHT were scaled to represent weekend conditions based on ratios of weekday-weekend traffic data from the Highway Performance Monitoring System (HPMS).